

Light Emissive Display Based On Lightwave Coupling

Abstract

A light emissive display having a specular waveguide that propagates short wavelength light and photoluminescent features adjacent to the waveguide that fluoresce, for example, in visible red, green, blue, and mixed colors when selectively
5 coupled with the short wavelength light. The photoluminescent layers emit light primarily and, therefore, efficiently in the direction of an observer only. This light emissive display may be utilized as a planar light source, as patterned information signage, or as a re-configurable information display containing intensity modulated pixels. The light emissive display may be enhanced optically such that only a small
10 portion of ambient light is reflected from the display while preserving the majority of emitted display luminance.